

Name _____

Date _____

1. Complete each *more* or *less* statement.

a. 10 more than 175 is _____.

b. 100 more than 175 is _____.

c. 10 less than 175 is _____.

d. 100 less than 175 is _____.

e. 319 is 10 more than _____.

f. 499 is 100 less than _____.

g. _____ is 100 less than 888.

h. _____ is 10 more than 493.

i. 898 is _____ than 998.

j. 607 is _____ than 597.

k. 10 more than 309 is _____.

l. 309 is _____ than 319.

2. Complete each regular number pattern.

a. 170, 180, 190, _____, _____, _____

b. 420, 410, 400, _____, _____, _____

c. 789, 689, _____, _____, _____, 289

d. 565, 575, _____, _____, _____, 615

e. 724, _____, _____, _____, 684, 674

f. _____, _____, _____, 886, 876, 866

3. Complete each statement.

a. $389 \xrightarrow{+10} \underline{\hspace{2cm}} \xrightarrow{+100} \underline{\hspace{2cm}}$

b. $187 \xrightarrow{-100} \underline{\hspace{2cm}} \xrightarrow{-10} \underline{\hspace{2cm}}$

c. $609 \xrightarrow{-10} \underline{\hspace{2cm}} \xrightarrow{-\underline{\hspace{1cm}}} 499 \xrightarrow{+10} \underline{\hspace{2cm}} \xrightarrow{+\underline{\hspace{1cm}}} 519$

d. $512 \xrightarrow{-10} \underline{\hspace{2cm}} \xrightarrow{-10} \underline{\hspace{2cm}} \xrightarrow{+100} \underline{\hspace{2cm}} \xrightarrow{+100} \underline{\hspace{2cm}} \xrightarrow{+10} \underline{\hspace{2cm}}$

4. Solve using the arrow way.

a. $212 + 106 = \underline{\hspace{2cm}}$

b. $323 + \underline{\hspace{2cm}} = 400$

c. $\underline{\hspace{2cm}} + 511 = 732$

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1. Solve each addition problem using place value strategies. Use the arrow way or mental math, and record your answers. You may use scrap paper if you like.

a. 2 hundreds 4 tens + 3 hundreds = _____ hundreds _____ tens

$$240 + 300 = \underline{\hspace{2cm}}$$

b. $340 + 300 = \underline{\hspace{2cm}}$ $140 + 500 = \underline{\hspace{2cm}}$ $200 + 440 = \underline{\hspace{2cm}}$

c. $400 + 374 = \underline{\hspace{2cm}}$ $274 + 500 = \underline{\hspace{2cm}}$ $700 + 236 = \underline{\hspace{2cm}}$

d. $571 + \underline{\hspace{2cm}} = 871$ $\underline{\hspace{2cm}} + 349 = 749$ $96 + \underline{\hspace{2cm}} = 696$

e. $\underline{\hspace{2cm}} + 562 = 862$ $300 + \underline{\hspace{2cm}} = 783$ $600 + \underline{\hspace{2cm}} = 726$

2. Solve each subtraction problem using place value strategies. Use the arrow way or mental math, and record your answers. You may use scrap paper if you like.

a. 6 hundreds 2 ones – 4 hundreds = _____ hundreds _____ tens _____ ones

$$602 - 400 = \underline{\hspace{2cm}}$$

b. $640 - 200 = \underline{\hspace{2cm}}$ $650 - 300 = \underline{\hspace{2cm}}$ $750 - \underline{\hspace{2cm}} = 350$

c. $462 - 200 = \underline{\hspace{2cm}}$ $667 - 500 = \underline{\hspace{2cm}}$ $731 - 400 = \underline{\hspace{2cm}}$

d. $431 - \underline{\hspace{2cm}} = 131$ $985 - \underline{\hspace{2cm}} = 585$ $768 - \underline{\hspace{2cm}} = 68$

e. $\underline{\hspace{2cm}} - 200 = 662$ $\underline{\hspace{2cm}} - 300 = 653$ $734 - \underline{\hspace{2cm}} = 234$

3. Fill in the blanks to make true number sentences. Use place value strategies, number bonds, or the arrow way to solve.
- a. 200 more than 389 is _____.
- b. 300 more than _____ is 568.
- c. 400 less than 867 is _____.
- d. _____ less than 962 is 262.
4. Jessica's lemon tree had 526 lemons. She gave away 300 lemons. How many does she have left? Use the arrow way to solve.

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1. Solve each set of problems using the arrow way.

a.

$$380 + 200$$

$$380 + 220$$

$$380 + 230$$

b.

$$470 + 400$$

$$470 + 430$$

$$470 + 450$$

c.

$$650 + 200$$

$$650 + 250$$

$$650 + 280$$

d.

$$430 + 300$$

$$430 + 370$$

$$430 + 390$$

2. Solve using the arrow way or mental math. Use scrap paper if needed.

a. $490 + 200 = \underline{\hspace{2cm}}$ $210 + 490 = \underline{\hspace{2cm}}$ $490 + 220 = \underline{\hspace{2cm}}$

b. $230 + 700 = \underline{\hspace{2cm}}$ $230 + 710 = \underline{\hspace{2cm}}$ $730 + 230 = \underline{\hspace{2cm}}$

c. $260 + 240 = \underline{\hspace{2cm}}$ $260 + 260 = \underline{\hspace{2cm}}$ $280 + 260 = \underline{\hspace{2cm}}$

d. $160 + 150 = \underline{\hspace{2cm}}$ $370 + 280 = \underline{\hspace{2cm}}$ $380 + 450 = \underline{\hspace{2cm}}$

e. $430 + 290 = \underline{\hspace{2cm}}$ $660 + 180 = \underline{\hspace{2cm}}$ $370 + 270 = \underline{\hspace{2cm}}$

3. Solve.

a. $66 \text{ tens} + 20 \text{ tens} = \underline{\hspace{2cm}} \text{ tens}$ b. $66 \text{ tens} + 24 \text{ tens} = \underline{\hspace{2cm}} \text{ tens}$

c. $66 \text{ tens} + 27 \text{ tens} = \underline{\hspace{2cm}} \text{ tens}$ d. $67 \text{ tens} + 28 \text{ tens} = \underline{\hspace{2cm}} \text{ tens}$

e. What is the value of 86 tens? $\underline{\hspace{2cm}}$

Name _____

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1. Solve using the arrow way.

a.

$570 - 200$

$570 - 270$

$570 - 290$

b.

$760 - 400$

$760 - 460$

$760 - 480$

c.

$950 - 500$

$950 - 550$

$950 - 580$

d.

$820 - 320$

$820 - 360$

$820 - 390$

2. Solve using the arrow way or mental math. Use scrap paper if needed.

a.

$530 - 400 = \underline{\hspace{2cm}}$

$530 - 430 = \underline{\hspace{2cm}}$

$530 - 460 = \underline{\hspace{2cm}}$

b.

$950 - 550 = \underline{\hspace{2cm}}$

$950 - 660 = \underline{\hspace{2cm}}$

$950 - 680 = \underline{\hspace{2cm}}$

c.

$640 - 240 = \underline{\hspace{2cm}}$

$640 - 250 = \underline{\hspace{2cm}}$

$640 - 290 = \underline{\hspace{2cm}}$

d.

$740 - 440 = \underline{\hspace{2cm}}$

$740 - 650 = \underline{\hspace{2cm}}$

$740 - 690 = \underline{\hspace{2cm}}$

3. Solve.

a. $88 \text{ tens} - 20 \text{ tens} = \underline{\hspace{2cm}}$

b. $88 \text{ tens} - 28 \text{ tens} = \underline{\hspace{2cm}}$

c. $88 \text{ tens} - 29 \text{ tens} = \underline{\hspace{2cm}}$

d. $84 \text{ tens} - 28 \text{ tens} = \underline{\hspace{2cm}}$

e. What is the value of 60 tens? $\underline{\hspace{2cm}}$

f. What is the value of 56 tens? $\underline{\hspace{2cm}}$

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1. Solve.

a. 30 tens = _____

b. 43 tens = _____

c. 18 tens + 12 tens = _____ tens

d. 18 tens + 13 tens = _____ tens

e. 24 tens + 19 tens = _____ tens

f. 25 tens + 29 tens = _____ tens

2. Add by drawing a number bond to make a hundred. Write the simplified number sentence and solve.

a. $190 + 130$



$$\underline{\hspace{2cm}} 200 + 120 \hspace{1cm} = \hspace{2cm}$$

b. $260 + 190$

$$\underline{\hspace{2cm}} = \hspace{2cm}$$

c. $330 + 180$

$$\underline{\hspace{2cm}} = \hspace{2cm}$$

d. $440 + 280$

$$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

e. $199 + 86$

$$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

f. $298 + 57$

$$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

g. $425 + 397$

$$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

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1. Draw and label a tape diagram to show how to simplify the problem. Write the new number sentence, and then subtract.

a. $220 - 190 = \underline{230 - 200} = \underline{\hspace{2cm}}$

+ 10	220
+ 10	190

b. $320 - 190 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

c. $400 - 280 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

d. $470 - 280 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

e. $530 - 270 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2. Draw and label a tape diagram to show how to simplify the problem. Write a new number sentence, and then subtract. Check your work using addition.

a. $451 - 199 = \underline{452 - 200} = \underline{\hspace{2cm}}$

<table border="1"><tr><td>+ 1</td><td>451</td></tr><tr><td>+ 1</td><td>199</td></tr></table>	+ 1	451	+ 1	199	Check:
+ 1	451				
+ 1	199				

b. $562 - 299 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

	Check:
--	--------

c. $432 - 298 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

	Check:
--	--------

d. $612 - 295 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

	Check:
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Name _____ Date _____

1. Circle the student work that shows a *correct* solution to $543 + 290$.

$543 + 290 = 533 + 300 = 833$ <p style="margin-left: 40px;">^ 533 10</p>	<p>Explain the mistake in any of the incorrect solutions.</p>
$543 + 290 = 533 + 300 = 833$ <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> $\times 10$ 543 </div> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> $\times 10$ 290 </div>	
$543 \xrightarrow{+200} 743 \xrightarrow{+60} 803 \xrightarrow{+30} 833$	

2. Circle the student work that *correctly* shows a strategy to solve $721 - 490$.

$$721 - 490 = 711 - 500 = 211$$

^
711 10

$\times 10$ 721

$\times 10$ 490

$$731 - 500 = 231$$

Fix the work that is *incorrect* by making a new drawing in the space below with a matching number sentence.

3. Two students solved $636 + 294$ using two different strategies.

$$636 \xrightarrow{+4} 640 \xrightarrow{+60} 700 \xrightarrow{+30} 730 \xrightarrow{+200} 930$$

$$\begin{array}{r} 636 + 294 = 630 + 300 = 930 \\ \quad \quad \quad \wedge \\ 630 \quad 6 \end{array}$$

Explain which strategy would be easier to use when solving and why.

4. Circle one of the strategies below, and use the circled strategy to solve $290 + 374$.

<p>a.</p> <p style="text-align: center;"><i>arrow way / number bond</i></p>	<p>b. Solve:</p>
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- c. Explain why you chose that strategy.

Name _____

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1. Solve the following problems using your place value chart, place value disks, and vertical form. Bundle a ten or hundred, when necessary.

a. $301 + 49$	b. $402 + 48$
c. $315 + 93$	d. $216 + 192$
e. $545 + 346$	f. $565 + 226$
g. $222 + 687$	h. $164 + 745$

2. Solve using mental math, a simplifying strategy, or place value chart and place value disks.

a. $300 + 200 =$ _____

b. $320 + 200 =$ _____

c. $320 + 230 =$ _____

d. $320 + 280 =$ _____

e. $328 + 286 =$ _____

f. $600 + 80 =$ _____

g. $600 + 180 =$ _____

h. $620 + 180 =$ _____

i. $680 + 220 =$ _____

j. $680 + 230 =$ _____

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1. Solve the following problems using place value disks, a place value chart, and vertical form.

a. $417 + 293$	b. $526 + 185$
c. $338 + 273$	d. $625 + 186$
e. $250 + 530$	f. $243 + 537$
g. $376 + 624$	h. $283 + 657$

2. Solve using mental math, a simplifying strategy, or a place value chart and place value disks.

a. $270 + 430 =$ _____

b. $260 + 440 =$ _____

c. $255 + 445 =$ _____

d. $258 + 443 =$ _____

e. $408 + 303 =$ _____

f. $478 + 303 =$ _____

g. $478 + 323 =$ _____

Name _____

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1. Solve using vertical form, and draw chips on the place value chart. Bundle as needed.

hundreds	tens	ones

a. $117 + 170 =$ _____

hundreds	tens	ones

b. $217 + 173 =$ _____

hundreds	tens	ones

c. $371 + 133 =$ _____

hundreds	tens	ones

d. $504 + 269 = \underline{\hspace{2cm}}$

2. Solve using vertical form, and draw chips on a place value chart. Bundle as needed.

a. $546 + 192 = \underline{\hspace{2cm}}$

b. $546 + 275 = \underline{\hspace{2cm}}$

Name _____

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1. Solve using vertical form, and draw chips on the place value chart. Bundle as needed.

hundreds	tens	ones

a. $227 + 183 =$ _____

hundreds	tens	ones

b. $424 + 288 =$ _____

hundreds	tens	ones

c. $638 + 298 =$ _____

hundreds	tens	ones

d. $648 + 289 = \underline{\hspace{2cm}}$

2. Solve using vertical form, and draw chips on a place value chart. Bundle as needed.

a. $307 + 187$

b. $398 + 207$

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1. Tracy solved the problem $299 + 399$ four different ways.

<p> $299 \xrightarrow{+1} 300 \xrightarrow{+98} 398 \xrightarrow{+300} 698$ </p>	<p> $299 + 399$ $298 + 400 = 698$ </p>
<p> 6 hundreds, 9 tens, 8 ones </p>	<p> hundreds tens ones 6 9 8 </p>

Explain which strategy is most efficient for Tracy to use and why.

2. Choose the best strategy and solve. Explain why you chose that strategy.

a. $221 + 498$	Explanation:
b. $467 + 200$	Explanation:
c. $378 + 464$	Explanation:

Name _____

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1. Solve using mental math.

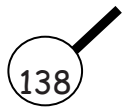
a. $8 - 6 = \underline{\quad}$ $80 - 60 = \underline{\quad}$ $180 - 60 = \underline{\quad}$ $180 - 59 = \underline{\quad}$

b. $6 - 3 = \underline{\quad}$ $60 - 30 = \underline{\quad}$ $760 - 30 = \underline{\quad}$ $760 - 28 = \underline{\quad}$

2. Solve using mental math or vertical form with place value disks. Check your work using addition.

a. $138 - 17 = \underline{121}$

b. $138 - 19 = \underline{\quad}$


$$\begin{array}{r} 138 \\ -17 \\ \hline 121 \end{array}$$
$$\begin{array}{r} 121 \\ +17 \\ \hline 138 \end{array}$$

c. $445 - 35 = \underline{\quad}$

d. $445 - 53 = \underline{\quad}$

e. $863 - 170 = \underline{\hspace{2cm}}$

f. $845 - 152 = \underline{\hspace{2cm}}$

g. $472 - 228 = \underline{\hspace{2cm}}$

h. $418 - 274 = \underline{\hspace{2cm}}$

i. $567 - 184 = \underline{\hspace{2cm}}$

j. $567 - 148 = \underline{\hspace{2cm}}$

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1. Solve by drawing place value disks on a chart. Then, use addition to check your work.

a. $469 - 170$	Solve vertically or mentally:	Check:
b. $531 - 224$	Solve vertically or mentally:	Check:
c. $618 - 229$	Solve vertically or mentally:	Check:

d. $838 - 384$	Solve vertically or mentally:	Check:
e. $927 - 628$	Solve vertically or mentally:	Check:

2. If $561 - 387 = 174$, then $174 + 387 = 561$. Explain why this statement is true using numbers, pictures, or words.

Name _____ Date _____

1. Solve by drawing chips on the place value chart. Then, use addition to check your work.

<p>a. $699 - 210$</p> <table border="1" style="margin: 10px auto; width: 200px;"> <thead> <tr> <th style="padding: 5px;">hundreds</th> <th style="padding: 5px;">tens</th> <th style="padding: 5px;">ones</th> </tr> </thead> <tbody> <tr> <td style="height: 150px;"></td> <td></td> <td></td> </tr> </tbody> </table>	hundreds	tens	ones				<p>Solve vertically or mentally:</p>	<p>Check:</p>
hundreds	tens	ones						
<p>b. $758 - 387$</p> <table border="1" style="margin: 10px auto; width: 200px;"> <thead> <tr> <th style="padding: 5px;">hundreds</th> <th style="padding: 5px;">tens</th> <th style="padding: 5px;">ones</th> </tr> </thead> <tbody> <tr> <td style="height: 150px;"></td> <td></td> <td></td> </tr> </tbody> </table>	hundreds	tens	ones				<p>Solve vertically or mentally:</p>	<p>Check:</p>
hundreds	tens	ones						
<p>c. $788 - 299$</p> <table border="1" style="margin: 10px auto; width: 200px;"> <thead> <tr> <th style="padding: 5px;">hundreds</th> <th style="padding: 5px;">tens</th> <th style="padding: 5px;">ones</th> </tr> </thead> <tbody> <tr> <td style="height: 150px;"></td> <td></td> <td></td> </tr> </tbody> </table>	hundreds	tens	ones				<p>Solve vertically or mentally:</p>	<p>Check:</p>
hundreds	tens	ones						

<p>d. $821 - 523$</p> <table border="1"> <thead> <tr> <th>hundreds</th> <th>tens</th> <th>ones</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	hundreds	tens	ones				Solve vertically or mentally:	Check:
hundreds	tens	ones						
<p>e. $913 - 558$</p> <table border="1"> <thead> <tr> <th>hundreds</th> <th>tens</th> <th>ones</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	hundreds	tens	ones				Solve vertically or mentally:	Check:
hundreds	tens	ones						

2. Complete all of the *if...then* statements. Draw a number bond to represent the related facts.

a. If $762 - \underline{\hspace{2cm}} = 173$, then $173 + 589 = \underline{\hspace{2cm}}$.

b. If $631 - \underline{\hspace{2cm}} = 273$, then $\underline{\hspace{2cm}} + 273 = 631$.

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1. Solve vertically or using mental math. Draw chips on the place value chart and unbundle, if needed.

a. $304 - 53 =$ _____

hundreds	tens	ones

b. $406 - 187 =$ _____

hundreds	tens	ones

c. $501 - 316 =$ _____

hundreds	tens	ones

d. $700 - 509 =$ _____

hundreds	tens	ones

e. $900 - 626 =$ _____

hundreds	tens	ones

2. Emily said that $400 - 247$ is the same as $399 - 246$. Write an explanation using pictures, numbers, or words to prove Emily is correct.

Name _____

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1. Solve vertically or using mental math. Draw chips on the place value chart and unbundle, if needed.

a. $200 - 113 =$ _____

hundreds	tens	ones

b. $400 - 247 =$ _____

hundreds	tens	ones

c. $700 - 428 =$ _____

hundreds	tens	ones

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1. Use the arrow way and counting on to solve.

a. $300 - 247$

b. $600 - 465$

2. Solve vertically and draw a place value chart and chips. Rename in one step.

a. $507 - 359$

b. $708 - 529$

3. Choose a strategy to solve and explain why you chose that strategy.

a. $600 - 437$

Explanation:

b. $808 - 597$	Explanation:
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4. Prove the student's strategy by solving both problems to check that their solutions are the same. Explain to your partner why this way works.



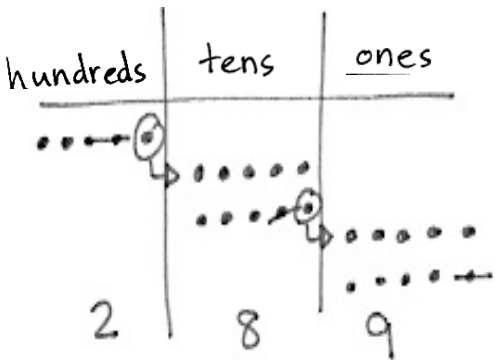
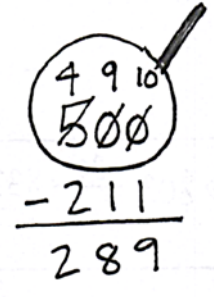
5. Use the simplifying strategy from Problem 4 to solve the following two problems.

a. $600 - 547$	b. $700 - 513$
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1. Explain how the two strategies to solve $500 - 211$ are related.

<p>a.</p> 	<p>b.</p> 
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2. Solve and explain why you chose that strategy.

a. $220 + 390 = \underline{\hspace{2cm}}$	Explanation: <hr/> <hr/> <hr/> <hr/> <hr/>
b. $547 - 350 = \underline{\hspace{2cm}}$	Explanation: <hr/> <hr/> <hr/> <hr/> <hr/>
c. $464 + 146 = \underline{\hspace{2cm}}$	Explanation: <hr/> <hr/> <hr/> <hr/> <hr/>
d. $600 - 389 = \underline{\hspace{2cm}}$	Explanation: <hr/> <hr/> <hr/> <hr/> <hr/>

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Step 1: Show your strategy to solve.

Step 2: Find a classmate who used a different strategy, and copy his work into the box.

Step 3: Discuss which strategy is more efficient.

1. $399 + 237 =$ _____

a. My strategy	b. _____'s strategy
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2. $400 - 298 =$ _____

a. My strategy	b. _____'s strategy
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3. $548 + 181 = \underline{\hspace{2cm}}$

a. My strategy

b. 's strategy

4. $360 + \underline{\hspace{2cm}} = 754$

a. My strategy

b. 's strategy

5. $862 - \underline{\hspace{2cm}} = 690$

a. My strategy

b. 's strategy